

## 03050105-130

(*Thicketty Creek*)

### General Description

Watershed 03050105-130 is located in Cherokee County and consists primarily of *Thicketty Creek* and its tributaries. The watershed occupies 100,753 acres of the Piedmont region of South Carolina. The predominant soil types consist of an association of the Pacolet-Wilkes-Herndon-Madison series. The erodibility of the soil (K) averages 0.30, and the slope of the terrain averages 16%, with a range of 2-45%. Land use/land cover in the watershed includes: 5.2% urban land, 19.7% agricultural land, 5.2% scrub/shrub land, 0.9% barren land, 68.4% forested land, and 0.6% water.

Thicketty Creek joins with Macedonia Creek to form Lake Thicketty at the top of the watershed. Thicketty Creek then accepts drainage from Thicketty Mountain Creek (Linder Creek), Clary Creek, Allgood Branch, and Irene Creek (Cole Creek) near the City of Gaffney. Little Thicketty Creek (Lake Rufus, Rocky Ford Creek, Cowpens Creek) enters Thicketty Creek next followed by Limestone Creek (Mill Creek, Skelton Creek) and Big Blue Branch (Blue Branch). North Goucher Creek and South Goucher Creek join in Hammett Lake to form Goucher Creek (Gum Root Creek), which flows into Thicketty Creek, downstream of Big Blue Branch. Jones Creek (Martin Lake) enters Thicketty Creek next followed by Timber Ridge Branch, Minkum Creek (Polecat Creek), Crocker Branch, Luster Mill Creek, and Gilkey Creek. Gilkey Creek accepts drainage from Gaffney Country Club Lake, Blanton Creek, Peeler Branch, Spencer Branch (also known as Cartum Branch), Dry Fork Creek, Martin Branch, and Rocky Branch. Thicketty Creek drains into the Broad River. There are several ponds and lakes (totaling 515.5 acres) in this watershed and a total of 182.3 stream miles, all classified FW.

### Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
B-342	W	FW	LAKE THICKETTY IN FOREBAY NEAR DAM
B-059	S	FW	IRENE CREEK AT S-11-307, 2.5 MI W OF GAFFNEY
B-095	S	FW	THICKETTY CREEK AT S-11-164
B-128	S	FW	LIMESTONE CREEK AT S-11-301
B-133	S/BIO	FW	THICKETTY CREEK AT SC 18, 8.3 MI S OF GAFFNEY
B-334	W/BIO	FW	GILKEY CREEK AT S-11-231, 9 MI SE OF GAFFNEY
B-062	S/BIO	FW	THICKETTY CREEK AT SC 211, 2 MI ABOVE JUNCTION WITH BROAD RIVER

*Thicketty Creek* - There are three monitoring sites along Thicketty Creek. At the upstream site (**B-095**), aquatic life uses are fully supported. There is a significant decreasing trend in pH. Further downstream (**B-133**), aquatic life uses are fully supported based on macroinvertebrate community data and physical/chemical data. There is a significant decreasing trend in pH. Significant decreasing trends in five-day biochemical oxygen demand, total phosphorus concentration, and turbidity suggest improving conditions for these parameters.

At the downstream site (**B-062**), aquatic life uses are fully supported based on macroinvertebrate community data and physical/chemical data. Significant decreasing trends in five-day biochemical oxygen demand and turbidity suggest improving conditions for these parameters. Recreational uses are

not supported at any site due to fecal coliform bacteria excursions, compounded by a significant increasing trend in fecal coliform bacteria concentrations.

**Lake Thicketty (B-342)** - Lake Thicketty is a 100-acre impoundment on Thicketty and Macedonia Creeks in Cherokee County, with a maximum depth of approximately 20 feet (6.1 m), and an average depth of 10 feet (3.1 m). Lake Thicketty's watershed comprises 6.9 square miles (18 km<sup>2</sup>). Aquatic life and recreational uses are fully supported.

**Irene Creek (B-059)** - Aquatic life uses are fully supported. There is a significant decreasing trend in pH. A significant decreasing trend in turbidity suggests improving conditions for this parameter. Recreational uses are not supported due to fecal coliform bacteria excursions, compounded by a significant increasing trend in fecal coliform bacteria concentrations.

**Limestone Creek (B-128)** - Aquatic life uses are fully supported. There is a significant decreasing trend in pH. A significant decreasing trend in five-day biochemical oxygen demand suggests improving conditions for this parameter. Recreational uses are not supported due to fecal coliform bacteria excursions.

**Gilkey Creek (B-334)** - Aquatic life uses are fully supported based on macroinvertebrate community data and physical/chemical data. Recreational uses are not supported due to fecal coliform bacteria excursions.

### ***Natural Swimming Areas***

<b><i>FACILITY NAME</i></b>	<b><i>PERMIT #</i></b>
<b><i>RECEIVING STREAM</i></b>	<b><i>STATUS</i></b>
CAMP LEA	11-N02
LAKE RUFUS	ACTIVE

### **NPDES Program**

#### ***Active NPDES Facilities***

<b><i>RECEIVING STREAM</i></b>	<b><i>NPDES#</i></b>
<b><i>FACILITY NAME</i></b>	<b><i>TYPE</i></b>
<b><i>PERMITTED FLOW @ PIPE (MGD)</i></b>	<b><i>LIMITATION</i></b>
THICKETTY CREEK	SC0031551
CITY OF GAFFNEY/CLARY WWTP	MAJOR DOMESTIC
PIPE #: 001 FLOW: 3.6	WATER QUALITY
WQL FOR BOD5,DO,TRC,NH3N	
ALLGOOD BRANCH	SC0034002
PINECONE CAMPGROUND WWTP	MINOR DOMESTIC
PIPE #: 001 FLOW: 0.018	WATER QUALITY
WQL FOR TRC,NH3N	

IRENE CREEK  
NESTLE FROZEN FOODS CORP.  
PIPE #: 001 FLOW: 0.066

SC0037664  
MINOR INDUSTRIAL  
WQL FOR TRC

SKELTON CREEK  
COLONIAL PIPELINE/GAFFNEY STATION  
PIPE #: 001 FLOW: M/R

SCR003084  
MINOR INDUSTRIAL  
EFFLUENT

MILL CREEK  
HAMRICK MILLS/MUSGROVE MILLS  
PIPE #: 001 FLOW: M/R

SCG250168  
MINOR INDUSTRIAL  
EFFLUENT

SPENCERS BRANCH  
BRIARCREEK SD II/UNITED UTILITIES  
PIPE #: 001 FLOW: 0.020  
WQL FOR TRC,NH3N

SC0026409  
MINOR DOMESTIC  
WATER QUALITY

SPENCERS BRANCH TRIBUTARY  
BRIARCREEK SD I/UNITED UTILITIES  
PIPE #: 001 FLOW: 0.0228  
WQL FOR TRC,NH3N

SC0023736  
MINOR DOMESTIC  
WATER QUALITY

JONES CREEK  
MEDLEY FARMS NPL SITE  
PIPE #: 001 FLOW: 0.041

SC0046469  
MINOR INDUSTRIAL  
EFFLUENT

## Nonpoint Source Management Program

### *Land Disposal Activities*

#### Landfill Facilities

*LANDFILL NAME*  
*FACILITY TYPE*

*PERMIT #*  
*STATUS*

LOVE SPRINGS/PIED INDUSTRIAL SERV.  
INDUSTRIAL

IWP-131  
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#### Land Application Sites

*LAND APPLICATION SYSTEM*  
*FACILITY NAME*

*ND#*  
*TYPE*

SPRAYFIELD  
BLANTON'S SEPTIC

ND0080489  
DOMESTIC

## Growth Potential

There is a moderate potential for growth in this watershed, which contains portions of the City of Gaffney and the Town of Cowpens. Major growth is expected along the I-85 corridor, which stretches across the watershed, particularly in the area north of Gaffney. U.S. Hwy. 29 and a rail line also stretch across the watershed from Spartanburg through Cowpens to Gaffney.